

Date: Thu, 19 May 94 04:30:28 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V94 #134
To: Ham-Homebrew

Ham-Homebrew Digest Thu, 19 May 94 Volume 94 : Issue 134

Today's Topics:

 Digital Delay Circuit Ideas?
 Ham-Homebrew Digest V94 #129
 Philips "Dream Machine" 8XC750 design contest (2 msgs)
 Repeater linking, what radios?
 Where can I obtain Millen high voltage connectors?

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Wed, 18 May 1994 13:31:51 GMT
From: ncrgw2.ncr.com!ncrhub2!ranger!lawdept.daytonOH.ncr.com!jra@uunet.uu.net
Subject: Digital Delay Circuit Ideas?
To: ham-homebrew@ucsd.edu

I'm designing a clock to be driven by my local frequency standard. My goal is
to be able to set the second mark to better than 1 millisecond (and I hope
eventually much better than that).

To do this, I need to build a variable delay that I can use to slew the
seconds marker. Actually, I'll need a couple of delays, starting at a higher
frequency for fine adjustment, and finally running at a lower one for course
adjust. Obviously, for stability reasons I want to do this digitally and not
with some sort of analog delay.

Any suggestions on CMOS devices (probably a presettable counter?) that
would work well here? The larger the count range in a single chip, the
better.

Thanks...

John AG9V
jra@lawdept.daytonOH.ncr.com

Date: 18 May 94 21:32:40 GMT
From: news-mail-gateway@ucsd.edu
Subject: Ham-Homebrew Digest V94 #129
To: ham-homebrew@ucsd.edu

In response to the question about telephone voltages in Europe....

I just returned from a 3 yr stay in Italy and used our U.S. phones without problems. If that helps... they are probably the same.

Lyle

Lyle D. Melton
School of Health Sciences
Seattle Pacific Univ
Seattle Washington
lmelton@spu.edu

Date: 17 May 94 07:22:12 GMT
From: munnari.oz.au!metro!sunb.ocs.mq.edu.au!macadam.mpce.mq.edu.au!
johnh@uunet.uu.net
Subject: Philips "Dream Machine" 8XC750 design contest
To: ham-homebrew@ucsd.edu

In article <2r1lat\$d52@darkstar.UCSC.EDU>, lance@shoppe.UCSC.EDU (Lance Bresee) writes:

...

|> >I received my development kit yesterday and am impressed with the contents.
|> >While it comes with a debugger, I wonder if any assembler or compiler for
|> >the 80C51 could be used with it?
|> >
|> I am also interested in the answer to this question.
|> Also, are there c compilers for the 80c51 series?

|> I have a project in mind for the 8xc752, but the
|> math is a problem for the assembly code.
|>
|>

Yes, there are - I'm using an Australian 8051 cross compiler (DOS hosted)
now (from a company called HiTech in Queensland - hitech@hitech.com.au).

Keep a lookout for the 8051 faq, which is posted monthly, or if you can't
wait, drop me a line and I'll mail you a copy of the April release.

JohnH

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Date: 18 May 94 18:30:02 GMT
From: agate!howland.reston.ans.net!cs.utexas.edu!korie1!news2me.EBay.Sun.COM!
handler.Eng.Sun.COM!pepper!cmcmannis@ucbvax.berkeley.edu
Subject: Philips "Dream Machine" 8XC750 design contest
To: ham-homebrew@ucsd.edu

David Billsbrough (kc4zvw@stardust.oau.org) wrote:
: There is a Philips Dream Machine 8XC750 design contest.

I got my DS-750 toolkit (I know, another in a series of nanocomputers)
and was very favorably impressed. The 8XC750 is in the same class as
a MicroChip PIC (like a 16C55) except that it can run at 40Mhz, has
a somewhat more complex instruction set, and more i/o pins in the
skinny DIP package. I also got the MicroChip kit when they were
doing their design contest, the Phillips one beats that by quite a
bit.

The Phillips DS-750 kit includes:

- (2) 8xC752 samples (used to emulate a 8xC750)
- (1) 8xC750 sample
- (1) serial cable
- (1) Wall bug type power supply
- (1) Assembler/Simulator/Debugger package (MS DOS)

(1) Programmer/Emulator - Programs 750/1/2 parts, emulates 750 parts.

(1) Manual (copyright March 1994!)

Nice plastic binder/box for storage.

Phillips 8x51 series databook

Phillips Application Notes

Unlike the PICSTART-16B which contained the programmer, no emulator, no serial cable, no powersupply, and no box to keep it in.

Anyway, my suggestion for anyone who is playing around with small dedicated processors is to not miss this deal.

--

--Chuck McManis All opinions in this message/article are
FirstPerson Inc. those of the author, who may or may not
Internet: cmcmanis@firstperson.COM be who you think it is.

Date: 19 May 94 03:14:37 GMT
From: sdd.hp.com!col.hp.com!bobw@hplabs.hpl.hp.com
Subject: Repeater linking, what radios?
To: ham-homebrew@ucsd.edu

David Grant (david@lambton.on.ca) wrote:

: I think that a Kenwood 732 would make a cheap remote site, if it
: was set to low power it could probably handle the duty cycle.
: A small brick could boost the power.

I'd be real concerned about the receiver performance on the 732.
It's not all that good for general mobile use and on a radio
site, it would be even worse (unless its way out in the boonies
where this is zero RF).

Page 58 of the manual says:

Caution This equipment can be extremely susceptible to lightning
strike damage or intermodulation distortion if it is
operated on mountain top locations.

I guess you could protect it with bandpass cavities or helical filters.

Bob Witte / bobw@col.hp.com / Hewlett Packard PMO / KB0CY / (719) 590-3230

Date: 18 May 94 14:18:04 GMT
From: hp-cv!hp-pcd!hpcvsnz!tomb@hplabs.hpl.hp.com
Subject: Where can I obtain Millen high voltage connectors?
To: ham-homebrew@ucsd.edu

David Feldman (dgf@netcom.com) wrote:

: I'm trying to find a source for Millen-type (or real Millen) high voltage
: connectors - they're a single conductor plastic body connector used on ends of
: the cable between a high power tube amplifier & it's power supply.
: Name and/or telephone number of vendor(s) greatly appreciated.

You might try the "SHV" or "MHV" series of connectors. They look a little like BNC, but are rated at 5000 volts peak, 5 amps, to 50MHz. They are for coaxial cable, which is a decent idea at high voltages anyway: I've always felt a little more comfortable with a grounded barrier between me and the high voltage. But the connectors in this series are pricey. Newark, for example, lists them.

There's also a fairly standard connector used on HeNe lasers, but it may not be rated for the current you want to use. Try laser supply places (Meredith in Phoenix??) for these.

Is Millen still in business??

Date: 19 May 94 06:00:24 GMT
From: dog.ee.lbl.gov!agate!howland.reston.ans.net!vixen.cso.uiuc.edu!
ux4.cso.uiuc.edu!cburian@ucbvax.berkeley.edu
To: ham-homebrew@ucsd.edu

References <CpooFy.7B5@stardust.oau.org>, <2rdmra\$gdh@handler.Eng.Sun.COM>,
<BILLW.94May18174710@glare.cisco.com>ed
Subject : Re: Philips "Dream Machine" 8XC750 design contest

billw@glare.cisco.com (William) writes:

] The 8XC750 is in the same class as a MicroChip PIC (like a 16C55)
] except that it can run at 40Mhz, has a somewhat more complex
] instruction set, and more i/o pins in the skinny DIP package.

]Beware: Mhz are not directly comparable. Those "more complex instructions"
]take a lot more cycles to execute as well. Most instructions take 12 clock
]periods, and a fair number take 24. So a 12Mhz executes most instructions
]in one microsecond, while a 20Mhz PIC executes most instructions in 200nS.

'Tis true. Perhaps Philips should follow Dallas' lead and reduce the number

of clock cycles per machine cycle, instead of just pushing the clock and
internals to the limit. (Maybe that's why they made it run up to 40MHz,
to make it competitive.)

Nevertheless, I'm glad I've got a skinny-dip 8031-core chip to play with.
I'm just miffed that it doesn't have a UART, since just about everything I
build talks to my PC via RS-232, and so I'm stuck with low speed and
complicated, program space-hogging comm routines.

Chris Burian

End of Ham-Homebrew Digest V94 #134
